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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,920	10/16/2003	Michael J. Shanor	380-149	7506

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KING & SCHICKLI, PLLC
247 NORTH BROADWAY
LEXINGTON, KY 40507

EXAMINER

TILL, TERRENCE R

ART UNIT	PAPER NUMBER
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1744

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/686,920

Applicant(s)

SHANOR, MICHAEL J.

Examiner

Terrence R. Till

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20, 23 and 24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 23 and 24 is/are rejected.
- 7) ☒ Claim(s) 10-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/4/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The indicated allowability of claim 9 is withdrawn in view of the previously cited reference to Cyphert. Rejections based on the reference follow.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. Claims 1-9, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cyphert (US 3,959,844) in view of Grassler (US 133,436 previously cited).

5. The patent to Cyphert discloses (figure 1) a housing 10 (and lower metal cladding); a nozzle inlet 26; a suction generator 51 carried on the housing; and a dirt cup 31 carried on the housing, said dirt cup including a bottom wall (see figure 1), a cylindrical side wall (see figure 2), an outlet at an end opposite the bottom wall, a dirt collection chamber within dirt cup, an air inlet to said dirt collection chamber in said bottom wall, an air inlet conduit 28 having an air

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deflector 29 carried on the inlet conduit and an air outlet from said dirt collection chamber.

Cyphert additionally discloses an annular screen section 30 extending concentrically around the air deflector, wherein said air deflector includes a support engaging said air inlet (disc at base of screen 30 engages inlet conduit), and a filter element 52 covering said air outlet. Cyphert does not disclose the deflector having a substantially hemihorn torus shape. However, the patent to Grassler discloses an arcuately shaped air deflector "H" located above air conduit "F". The arcuately shaped deflector is a substantially hemihorn torus shape. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to modify the air deflector of Cyphert to be arcuately shaped in view of the teaching of Grassler as a change in shape or form is generally recognized as being within the level of ordinary skill in the art. In re Dailey, 149 USPQ 47 (CCPA 1976).

6. With respect to claim 7, Cyphert does not disclose said support includes an axial inlet opening and at least one radially directed outlet opening for directing air outwardly adjacent a concave surface of said air deflector. Grassler does disclose deflector supports G (rods) that define an axial inlet opening and at least one radially directed outlet opening for directing air outwardly are an equivalent structure known in the art. Therefore, because these two air deflector supports were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious to substitute the disc support of Cyphert for the rod supports of Grassler to hold the deflector above the air inlet conduit.

7. With respect to claim 23, Cyphert, as modified by Grassler is considered to inherently disclose a method of directing an airstream in a dirt cup comprising discharging the airstream

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into said dirt cup in a substantially hemihorn torus shape; and exhausting the airstream from said dirt cup.

Allowable Subject Matter

8. Claims 10-20 remain objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. The following is a statement of reasons for the indication of allowable subject matter: With respect to claim 10, the prior art does not disclose nor render obvious the claim limitations of including a filter assembly received over said air outlet. Rather, the closest prior art, to Cyphert, discloses the filter within the dirt container, effectively under the air outlet. It would not be possible to modify the device of Cyphert without significant modification and impermissible hindsight.

Response to Arguments

10. Applicant's arguments with respect to claims 1-8, 23 and 24 have been considered but are moot in view of the new ground(s) of rejection.

11. In response to applicant's argument that Grassler is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, Grassler shows that a deflection member can be a different shape and have the same effect. As stated above, a change in shape or form is generally recognized as being within the level of ordinary skill in the art. In *re Dailey*,

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149 USPQ 47 (CCPA 1976). Whether the deflector is curved, flat angular, or a substantially hemihorn torus shape, it still functions the same: to deflect air and debris downward.


Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patent to Fetter et al. discloses a vacuum cleaner with a hemihorn torus shaped deflector.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Terrence R. Till whose telephone number is (571) 272-1280. The examiner can normally be reached on Mon. through Thurs. and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys P. Corcoran can be reached on (571) 272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Terrence R. Till
Primary Examiner
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trt